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Construction Code Office

Date: December 29, 2022 (Rev. January 27, 2023)

Re: Structural Roof Certification

Subj: TS Investments 601 W. Historic Mitchell St. Milwaukee, WI 53204

We have provided a review of the roof construction of the above-named property in regards to verifying the capacity of the existing roof for installation of a new Solar Panel Array.

We have found the roof structure to be of 6"x2.5" x 14 Ga. purlins @ 4'-0" o.c. with 1 ½" Sips Decking and clay tile roofing.

The steel framed roof structure bears directly upon the exterior wall system and interior WF Rafters. The existing members meet IBC-2015-WI design ratings with sufficient capacity to carry the 4#/sf additional load imposed by the proposed solar array per the details below.

Installation of solar rack systems shall be as follows:

Each panel row shall be supported upon a Unirac Solarhook sloped roof racking system. The racking is screw anchored to rafters or purlins below with 1/4" x 3.5" SS Hex Lag Bolts with SS EPDM bonded washers supporting the modules and aluminum rail system creating a unified mounting system and distribution of loading.

When installed per the above specifications the system shall meet the required 109 MPH wind load and 30 PSF ground snow load requirements.

Should you have any further questions or comments please feel free to contact our office.

Respectfully,

Professional Engineer

WI License # E-38262